



**Saskatchewan
Ministry of
Highways and
Infrastructure**

**2009 Ferry Traffic and
Seasonal/Winter Roads
Annual Report**

Traffic Services
Programs and Services Branch
Policy and Programs Division

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Executive Summary

This report summarizes traffic data collected at the 12 cable-stayed ferries and one free swimming ferry barge operated by the Ministry of Highways and Infrastructure during 2009. The report provides an analysis of passenger and vehicle volumes as well as traffic composition. Information about four seasonal roads operated by the Ministry is also included.

The main findings of the 2009 report are listed below.

- The ferry system transported more vehicles in 2009 than in any other year in the past ten years.
- The 2009 ferry operating season length was approximately 1.8% longer than in 2008.
- The total amount of down time reported by all ferries was lower than in 2008. Four of the ferries reported no down time at all.
- The Fenton ferry was shut down for the longest period of time because of low water conditions.
- Six other ferries at Riverhurst, St. Laurent, Cecil, Lemsford, Estuary, and Lancer were shut down for short periods usually due to high wind, repairs, sandbars, or ice buildup.
- The 2009 ADT was 2.0% higher than the 2008 ADT.
- Clarkboro and Riverhurst ferries carried 10% more vehicles in 2009 than in 2008. Estuary and Lancer ferries carried 33.8% and 24.3% more vehicles respectively.
- Lemsford, Fenton, and Wollaston Barge ferries carried more than 10% less vehicles in 2009 than in 2008.
- Increases in ADT occurred in 2009 at the Clarkboro, Riverhurst, Estuary, and Lancer ferries.
- The Clarkboro ferry had the highest traffic volume. The ADT in 2009 was just over 400 vehicles per day.
- Truck traffic percentages increased at the St. Laurent and Wingard ferries. All other ferries had a decrease in truck traffic percentages.

The 2009 report recommends:

- The process of requesting seasonal road information from the Ministry's Area Offices begin before the start of the ferries' operating season (April or May) rather than waiting until the end of the ferry season.

1.0 Introduction

This annual report provides a summary and analysis of the traffic using the provincial ferry system in 2009. This report examines vehicle types and historic traffic for each ferry. Useful insights into the function of each ferry can be obtained by examining the distribution and composition of ferry traffic. Passenger data for twelve of the ferry sites and operational information about the four seasonal/winter roads is also included in this report.

2.0 Background

The Ministry operated twelve cable-stayed ferries and one free swimming ferry barge during 2009. Cable-stayed ferries operated on the North Saskatchewan and South Saskatchewan Rivers and on Lake Diefenbaker. The single free swimming ferry operates on Wollaston Lake to serve the community of Wollaston Lake. Other than replacing the Cumberland ferry with a bridge in 1996, the ferry system has not changed since responsibility for the system was moved to the Ministry in 1992. Ferry locations are shown in Table I below.

Table I. Ferry Locations

Ferry	Location	Ministry Region
Clarkboro	South Saskatchewan River	Central Region
Riverhurst	Lake Diefenbaker	Southern Region
Paynton	North Saskatchewan River	Central Region
Weldon	South Saskatchewan River	Northern Region
St. Laurent	South Saskatchewan River	Central Region
Cecil	North Saskatchewan River	Northern Region
Hague	South Saskatchewan River	Central Region
Wingard	North Saskatchewan River	Central Region
Lemsford	South Saskatchewan River	Southern Region
Estuary	South Saskatchewan River	Southern Region
Fenton	South Saskatchewan River	Northern Region
Lancer	South Saskatchewan River	Southern Region
Wollaston Barge	Wollaston Lake	Northern Region

Ferry traffic data was collected by the ferry operators and forwarded to the traffic engineers, who analyzed and compiled this annual report. The vehicle classification forms used by ferry operators are shown in Appendix A.

During the winter months, the Ministry operated four seasonal/winter roads in 2009, for a total length of approximately 458 km. These roads provide access to isolated communities and seasonal industrial activities. The operational periods of the roads vary considerably from year to year because of weather conditions. Seasonal/winter road locations are shown in Table II below.

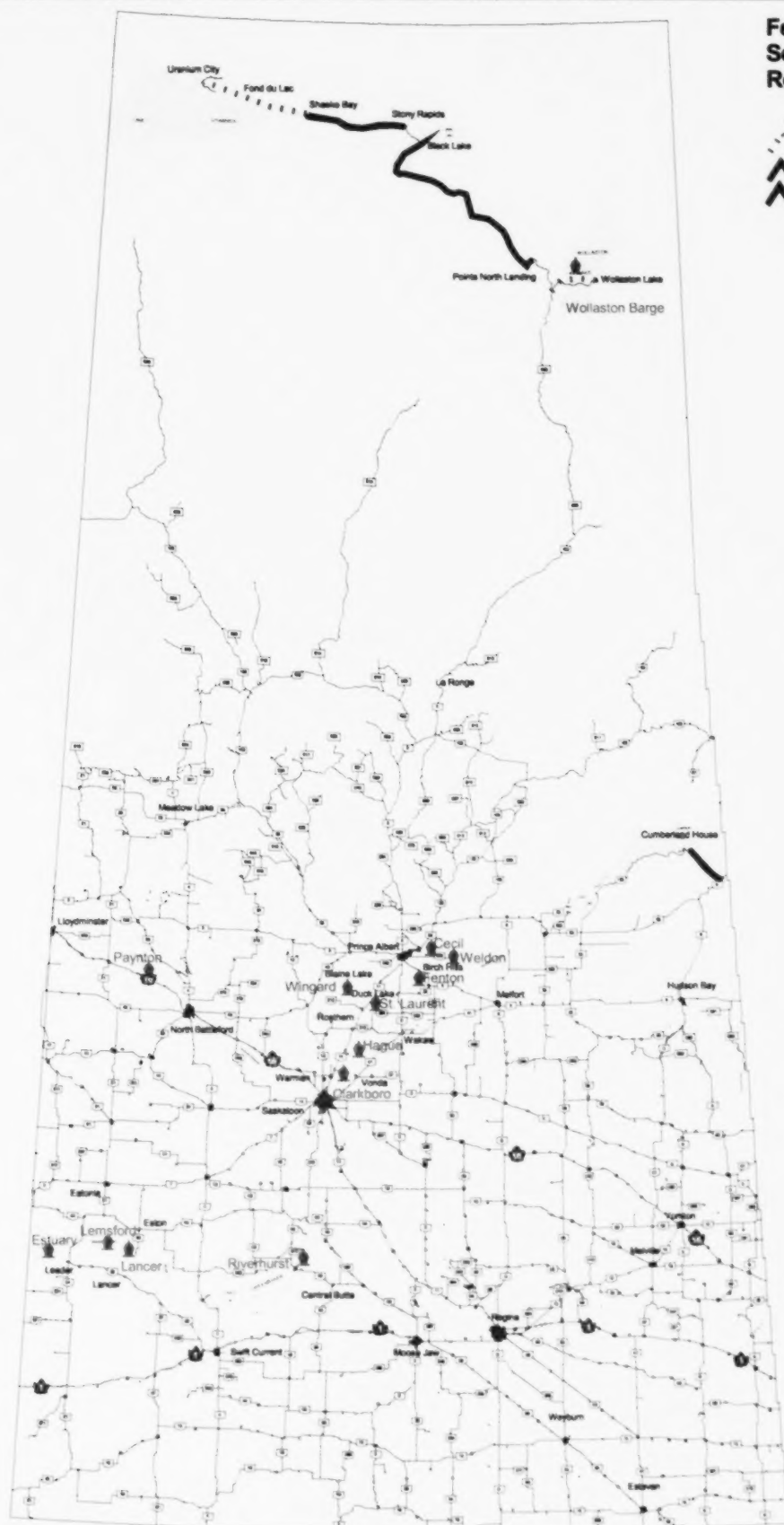
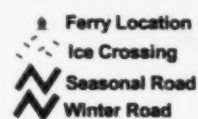
Table II. Seasonal/Winter Road Locations

Road	Location	Length (km)	Region
Cumberland House	Hwy 9 to Cumberland House	52	Northern Region
Riverhurst	Hwy 42 across Lake Diefenbaker	2	Southern Region
Wollaston Lake	Hwy 905 to Wollaston Lake	46	Northern Region
Athabasca	Points North Landing to Uranium City	358	Northern Region

The locations of the ferries and seasonal/winter roads, including ice crossings, are shown on the map on the following page.



Ferry and Seasonal/Winter Road Locations



3.0 Ferry Operating Seasons

All ferries, except the Riverhurst ferry and the Wollaston Barge ferry, operated 17 hours per day between the hours of 7:00 am and midnight. Ferries did not run at times because of mechanical failure, bad weather, or poor river conditions.

Table III below summarizes the 2009 operational season including downtime at all ferries in the province. Details of the downtime periods and their causes are shown in Appendix B. The majority of ferries reported a decrease or no change in down time compared to 2008. The Fenton ferry reported the largest increase in down time; the main cause was low water conditions.

Table III. 2009 Ferry Operating Season Statistics

Ferry	Season				Out of Service	
	Opening	Closing	Length (days)	Operating Hours	Hours	Percent
Clarkboro	Apr 20	Dec 3	227	3847	12.5	0.3
Paynton	Apr 30	Nov 11	195	3315.0	0	0.0
Riverhurst	May 8	Dec 8	214	5018.0	91	1.8
Weldon	Apr 27	Nov 13	200	3385	0	0.0
St. Laurent	Apr 28	Nov 25	211	3536	51	1.4
Cecil	Apr 28	Nov 9	195	3276.0	25	0.8
Wingard	Apr 28	Nov 4	190	3230	0	0.0
Lemsford	Apr 20	Nov 22	216	3608	52.5	1.4
Hague	Apr 24	Dec 2	222	3774	0	0.0
Fenton	May 4	Nov 13	193	2414.5	856	26.2
Estuary	Apr 21	Nov 22	215	3553	102	2.8
Lancer	Apr 22	Nov 22	214	3563.5	68.5	1.9
Wollaston Lake	Jul 10	Oct 15	97			2.1

4.0 Volume, Passenger and Classification Summaries

Table IV below summarizes the 2009 monthly traffic at the ferry sites. Historic traffic volumes for these ferries are shown in Appendix C. The average number of vehicles using the ferry per day is represented by the Average Daily Traffic (ADT). Historic ADT is shown in Appendix D. ADT at the Riverhurst ferry and Wollaston Barge ferry can not be directly compared to other ferries. The Riverhurst ferry operated 24 hours a day whereas the other cable-stayed ferries operated 17 hours a day. The Riverhurst ferry is also the only ferry that is located on a provincial highway.

Table IV. Monthly Ferry Traffic Volumes for the 2009 Season

Ferry	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	ADT
Clarkboro	2,842	13,612	14,382	13,486	12,975	13,448	9,871	10,137	709	91,462	404
Paynton	85	3,965	4,772	5,671	5,264	4,282	2,795	378	0	27,212	140
Riverhurst	0	3,150	5,146	8,527	6,433	4,624	2,972	2,549	485	33,886	162
Weldon	308	4,360	4,555	5,117	4,825	4,425	4,130	1,130	0	28,850	145
St. Laurent	184	2,410	2,851	5,175	2,881	2,661	2,053	1,270	0	19,485	94
Cecil	106	2,366	2,261	2,380	2,196	2,333	1,175	253	0	13,070	68
Wingard	87	1,529	1,766	2,325	2,155	1,918	1,329	83	0	11,192	59
Lemsford	364	1,469	1,295	1,516	1,547	1,278	1,114	557	0	9,140	43
Hague	277	1,693	1,808	1,617	1,598	1,559	1,190	1,107	48	10,897	49
Fenton	0	838	179	763	1,578	1,568	1,197	590	0	6,713	47
Estuary	280	1,450	1,331	1,480	1,658	1,392	1,031	785	0	9,407	45
Lancer	293	1,215	1,335	1,771	1,454	1,381	1,063	575	0	9,087	43
Wollaston Barge	0	0	0	154	179	132	16	0	0	481	5
Totals	4,826	38,057	41,681	49,982	44,743	41,001	29,936	19,414	1,242	270,882	

Table V summarizes the 2009 monthly number of passengers for the cable-stayed ferry sites. Historic passenger volumes for these ferries are shown in Appendix E.

Table V. Monthly Ferry Passenger Volumes for the 2009 Season

Ferry	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Clarkboro	4308	21385	22426	21503	22011	21553	15223	15608	1017	145034
Paynton	134	6357	7823	10336	9094	6941	4024	525	0	45234
Riverhurst	0	8267	8801	16082	12031	8066	5083	4014	813	60157
Weldon	505	8345	8892	10902	9786	8015	8051	1953	0	56449
St. Laurent	306	4914	6391	11649	6220	5170	3753	2180	0	40583
Cecil	155	4081	4200	4718	4152	3886	1952	371	0	23515
Wingard	160	3008	3923	5677	5304	4211	2746	145	0	25174
Lemsford	529	2700	2283	2772	2912	2084	1774	904	0	15958
Hague	306	2744	2961	2650	2651	2301	1611	1700	69	16893
Fenton	0	1276	277	1276	2674	2479	1729	920	0	10631
Estuary	492	2582	2301	2939	3004	2265	1690	1206	0	16479
Lancer	434	1991	2045	2844	2383	2235	1631	843	0	14406
Totals	7,329	64,650	72,223	93,348	82,222	69,206	49,267	30,369	1,899	470,513

Passenger volumes were first recorded in 2000, except for Riverhurst and St. Laurent where volumes have been recorded since 1996 and 2003 respectively.

Ferry operators record the type of vehicles using the ferries. The breakdown of vehicle types is summarized in the charts below. The Wollaston Barge ferry is not included in these graphs because it uses a unique classification scheme.

Chart 4.0A 2009 Straight Trucks by Location

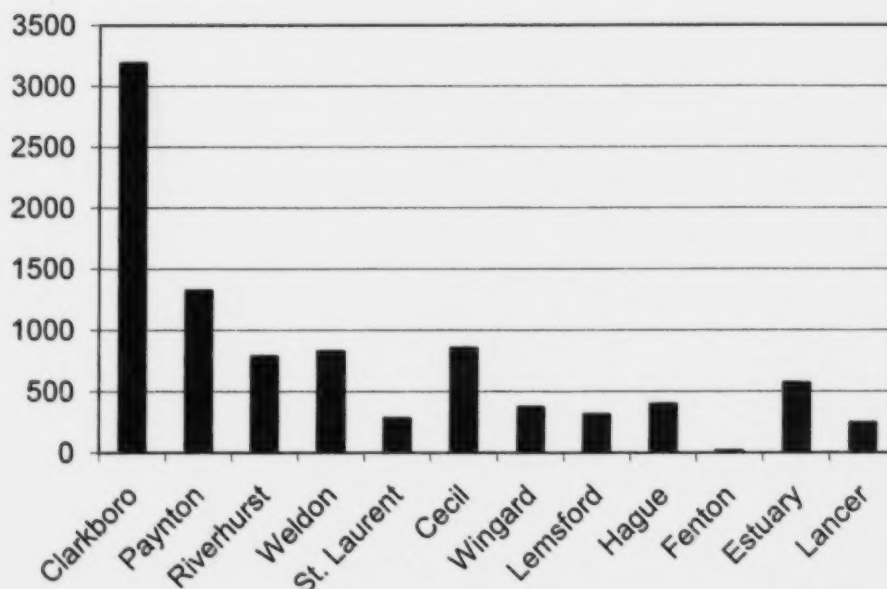


Chart 4.0B 2009 Single Trailer Trucks by Location

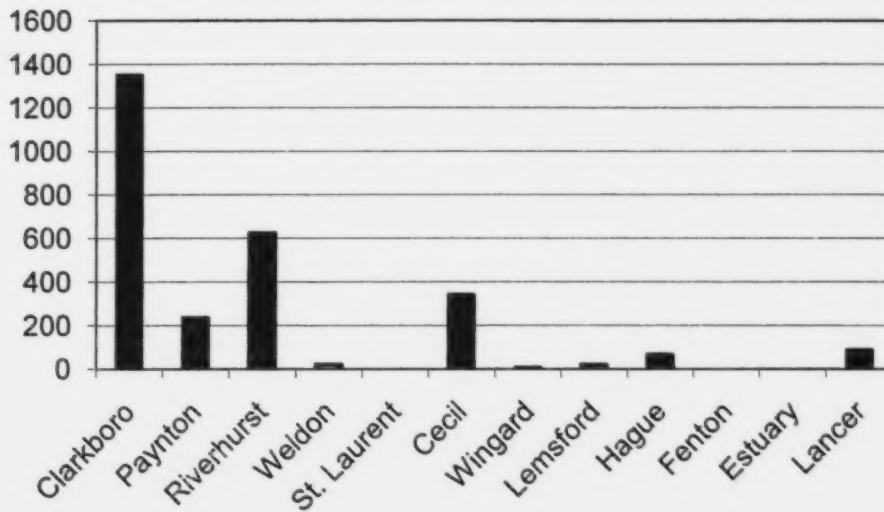
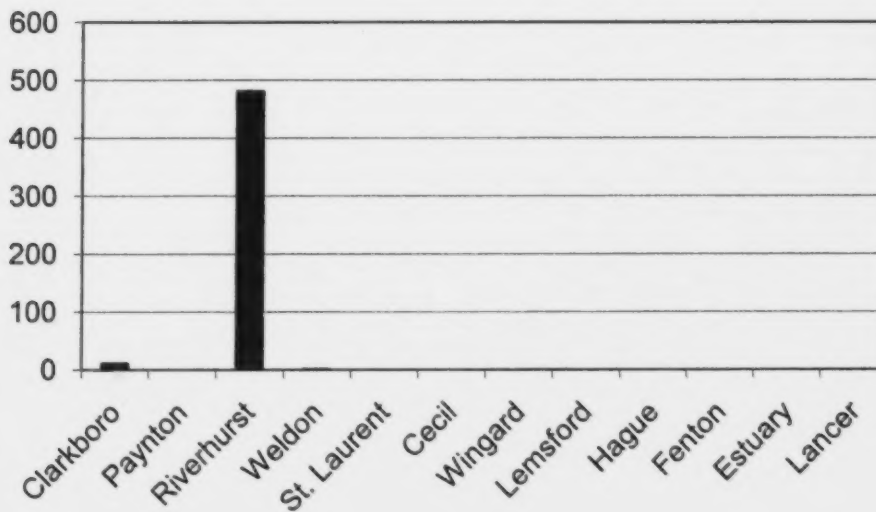
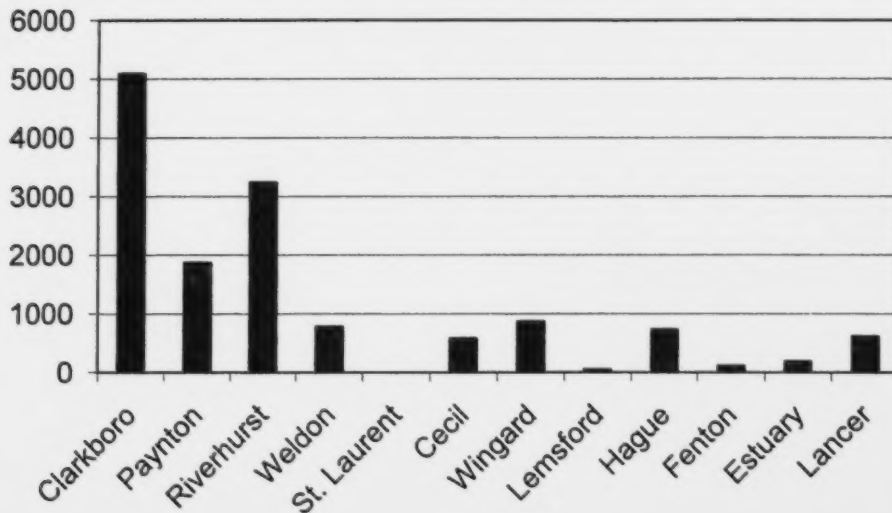


Chart 4.0C 2009 Multi Trailer Trucks by Location



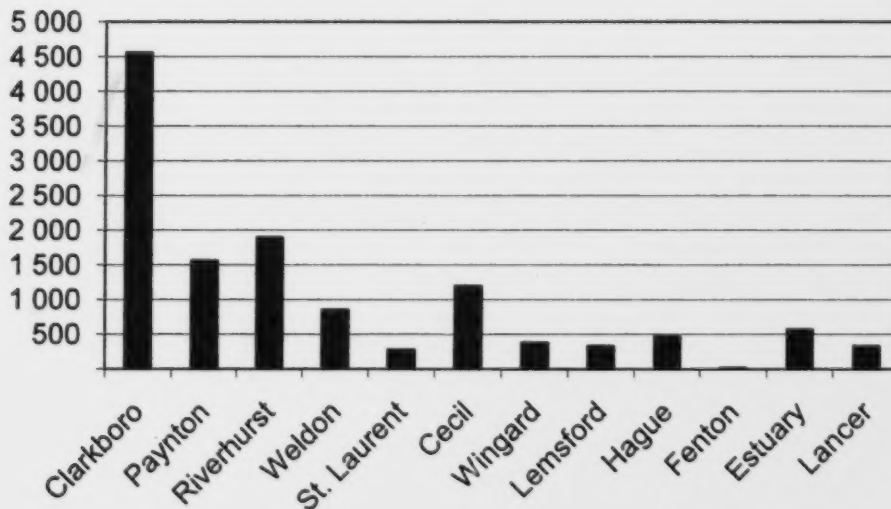
Most ferries are not long enough to accommodate multi trailer trucks.

Chart 4.0D 2009 Other Vehicles by Location



The vehicle category "other" normally refers to farm or construction equipment except near recreation areas, where there are often recreational vehicles or passenger vehicles pulling a boat or camping trailer.

Chart 4.0E 2009 Commercial Vehicles by Location



The commercial vehicles shown above only contain straight, single and multi trailer trucks. The "other" vehicles are not included because they are typically not hauling freight or commodities.

5.0 Site by Site Analysis

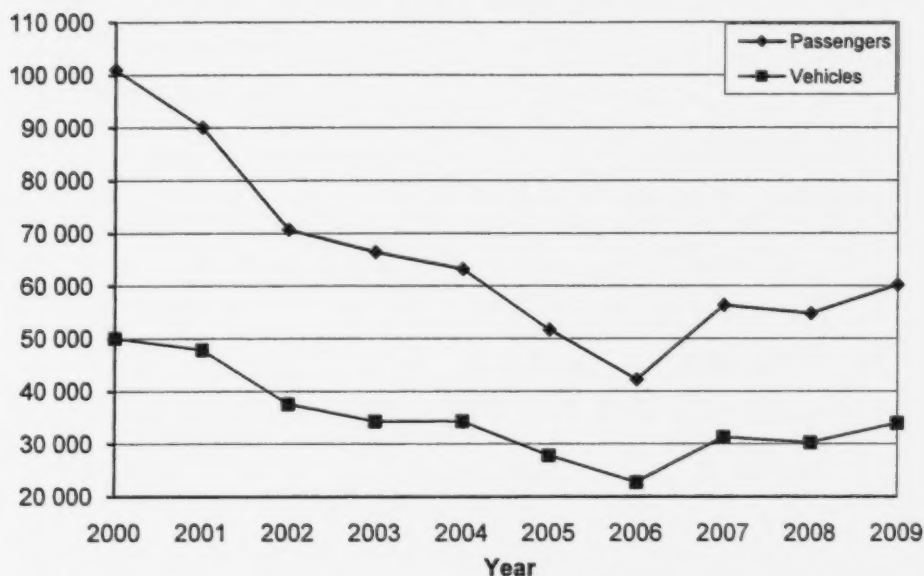
The ferry traffic data in this section is summarized by Ministry maintenance area. The area by area analysis results in six groupings: Moose Jaw, North Battleford, Prince Albert, Saskatoon, Swift Current and Wollaston.

5.1 Moose Jaw Area



The Moose Jaw area contains only the Riverhurst ferry, which is the largest and most sophisticated cable-stayed ferry in the province. This is the only ferry in the system located on a provincial highway. The Riverhurst ferry carries traffic on Highway 42 across the 2 km width of Lake Diefenbaker.

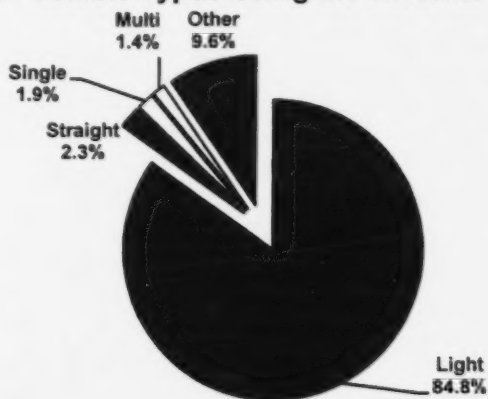
Chart 5.1A 10 Year History of Traffic on the Riverhurst Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	50 010	47 867	37 578	34 288	34 258	27 829	22 741	31 245	30 203	33 886	34 991
Passengers	100 979	90 056	70 700	66 422	63 193	51 692	42 213	56 320	54 742	60 157	65 647
ADT	216	204	176	169	153	127	144	139	141	162	163
Truck %	5.5	7.0	7.7	7.0	6.4	6.3	5.5	6.5	6.1	5.6	6.3

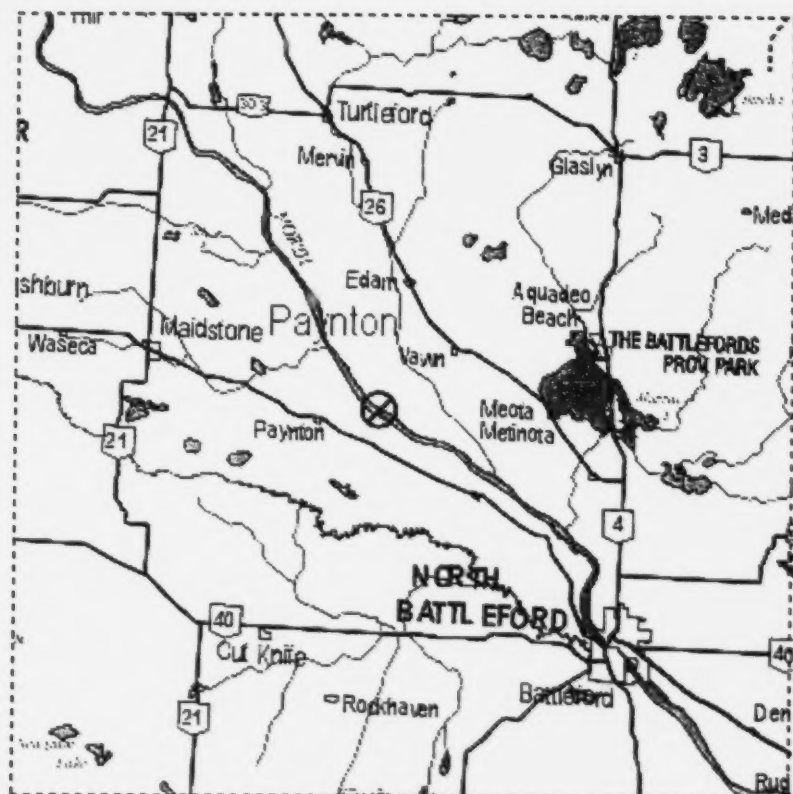
Traffic on the Riverhurst ferry increased by 12% compared to 2008. The 2009 ADT increased by 13% from 2008. These increases occurred even though the operating season in 2009 was six days shorter than in 2008.

Chart 5.1B Vehicle Types Using the Riverhurst Ferry



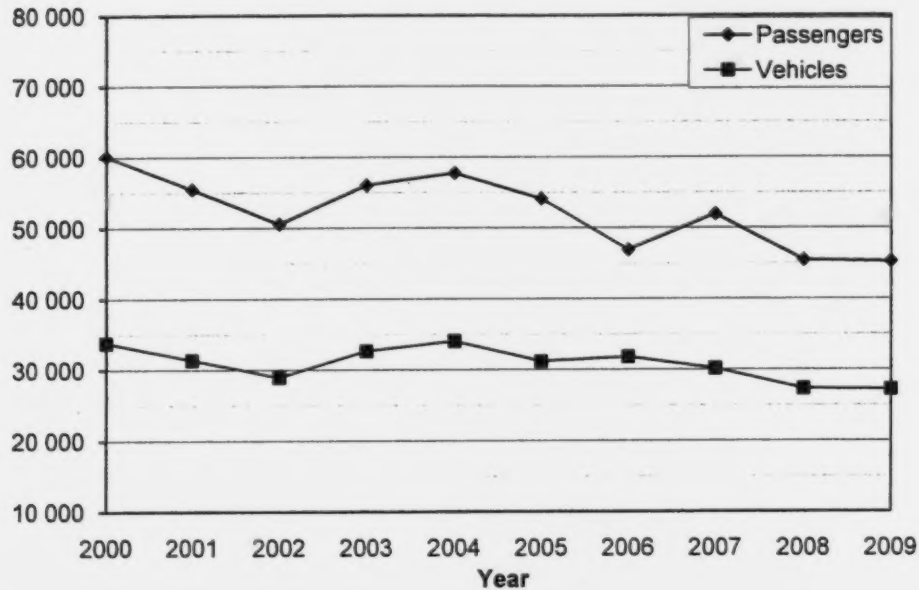
Riverhurst ferry had the highest percentage of "other" vehicles.

5.2 North Battleford Area



The North Battleford area has only the Paynton ferry.

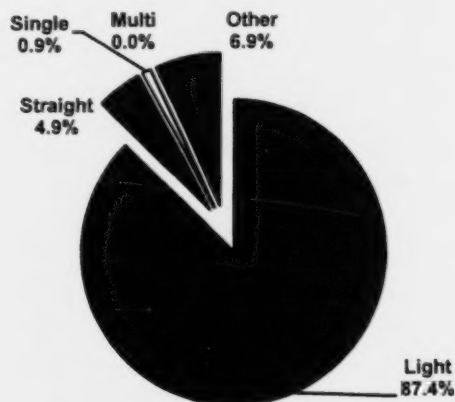
Chart 5.2A 10 Year History of Traffic on the Paynton Ferry



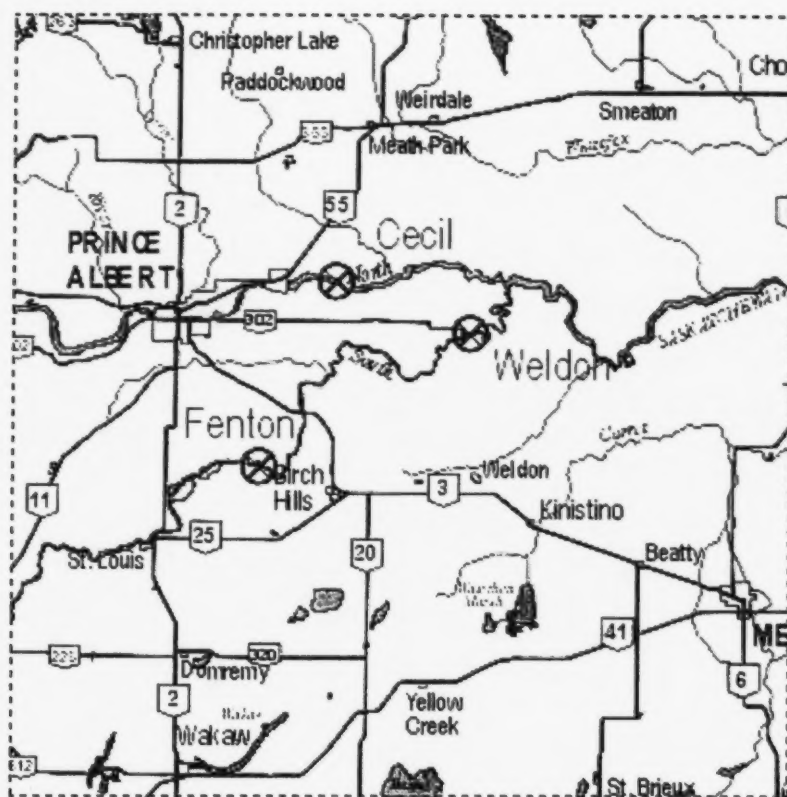
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	33 749	31 348	28 910	32 603	33 996	31 155	31 752	30 111	27 270	27 212	30 811
Passengers	60 119	55 475	50 577	56 014	57 743	54 100	46 889	51 909	45 457	45 234	52 352
ADT	170	158	167	175	180	161	169	162	152	140	163
Truck %	11.0	12.0	14.0	13.2	12.1	11.4	12.3	10.4	7.4	5.7	11.0

In 2009, traffic on the Paynton ferry was significantly below the ten year average. The ADT decreased by 8% from 2008.

Chart 5.2B Vehicle Types Using the Paynton Ferry

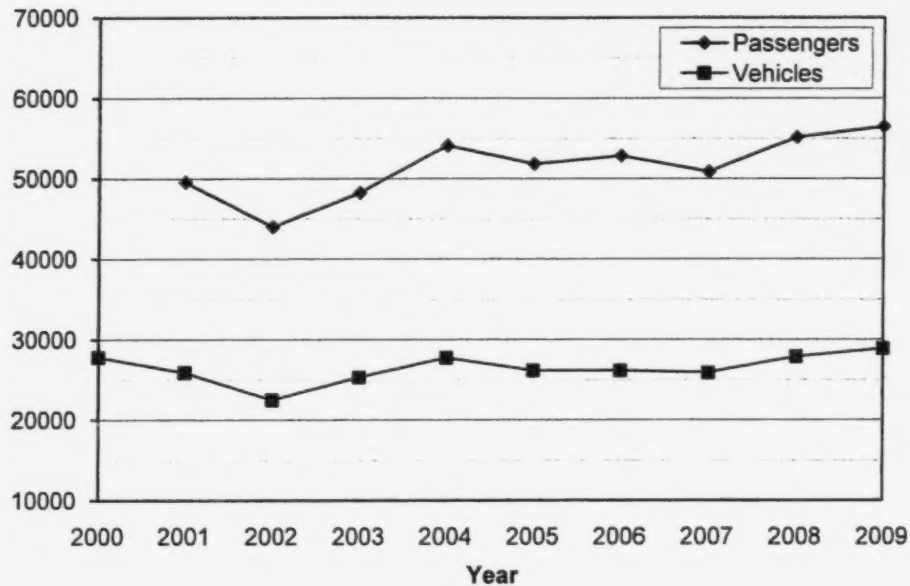


5.3 Prince Albert Area



The Prince Albert area includes the Weldon, Cecil and Fenton ferries.

Chart 5.3A 10 Year History of Traffic on the Weldon Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	27 770	25 875	22 461	25 308	27 709	26 124	26 137	25 887	27 838	28 850	26 396
Passengers		49 555	44 007	48 249	54 082	51 835	52 851	50 847	55 133	56 449	51 445
ADT	141	135	133	142	141	144	144	137	146	145	141
Truck %	4.5	5.2	3.8	5.9	3.8	3.4	3.1	3.5	3.4	3.0	3.9

In 2009, traffic on the Weldon ferry increased by 4% compared to 2008. The ADT remained almost unchanged, just slightly above the ten year average.

Chart 5.3B Vehicle Types Using the Weldon Ferry

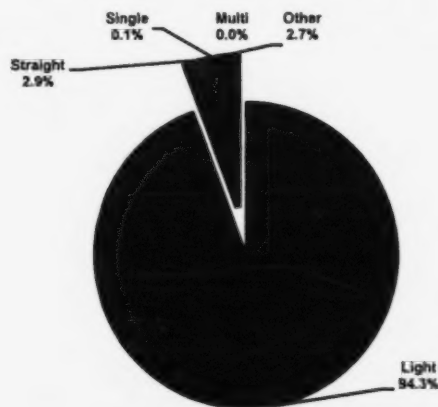
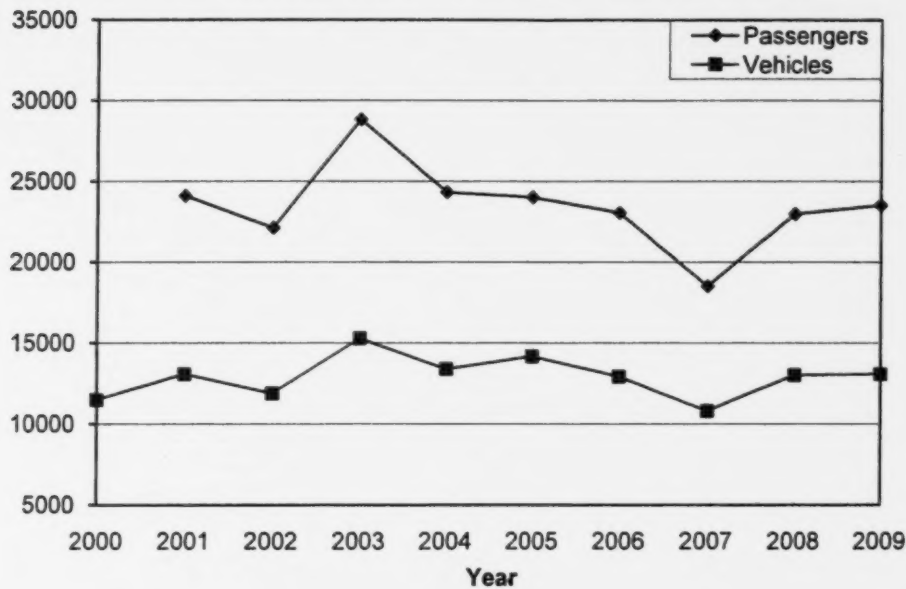


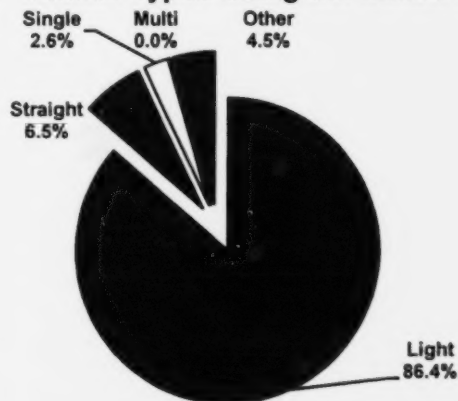
Chart 5.3C 10 Year History of Traffic on the Cecil Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	11 484	13 073	11 873	15 254	13 368	14 151	12 897	10 774	12 987	13 070	12 893
Passengers		24 098	22 112	28 819	24 310	24 015	23 052	18 505	22 986	23 515	23 490
ADT	57	67	71	86	69	74	69	59	68	68	69
Truck %	9.5	10.1	9.1	10.0	9.1	7.7	8.9	7.0	12.2	12.2	9.6

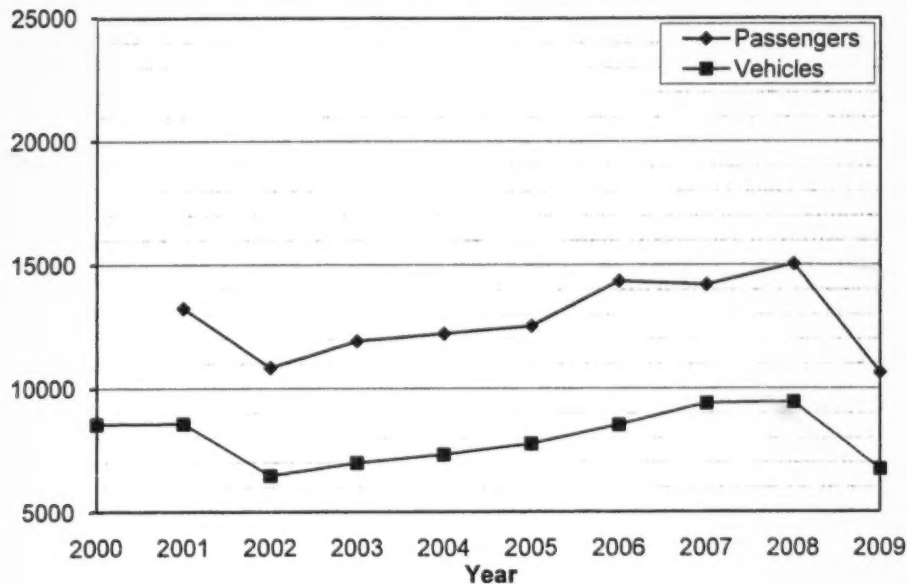
The Cecil ferry had a minimal increase in traffic. The ADT remained unchanged from the previous year.

Chart 5.3D Vehicle Types Using the Cecil Ferry



Though the percentage of Straight and Single Trailer trucks decreased in 2009, the Cecil ferry still had the highest truck traffic percentage of the cable-stayed ferries.

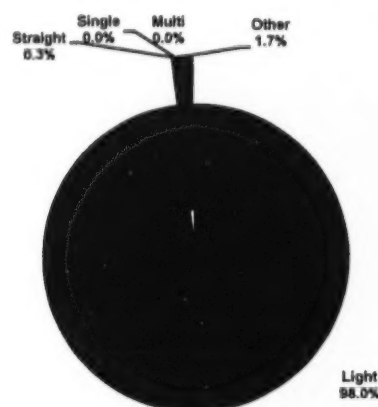
Chart 5.3E 10 Year History of Traffic on the Fenton Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	8 533	8 563	6 461	6 974	7 306	7 738	8 519	9 394	9 437	6 713	7 964
Passengers		13 236	10 835	11 909	12 209	12 517	14 341	14 195	15 038	10 631	12 768
ADT	45	45	40	41	38	43	47	50	51	47	45
Truck %	1.2	1.0	0.8	1.8	0.7	0.5	0.5	0.4	0.8	0.3	0.8

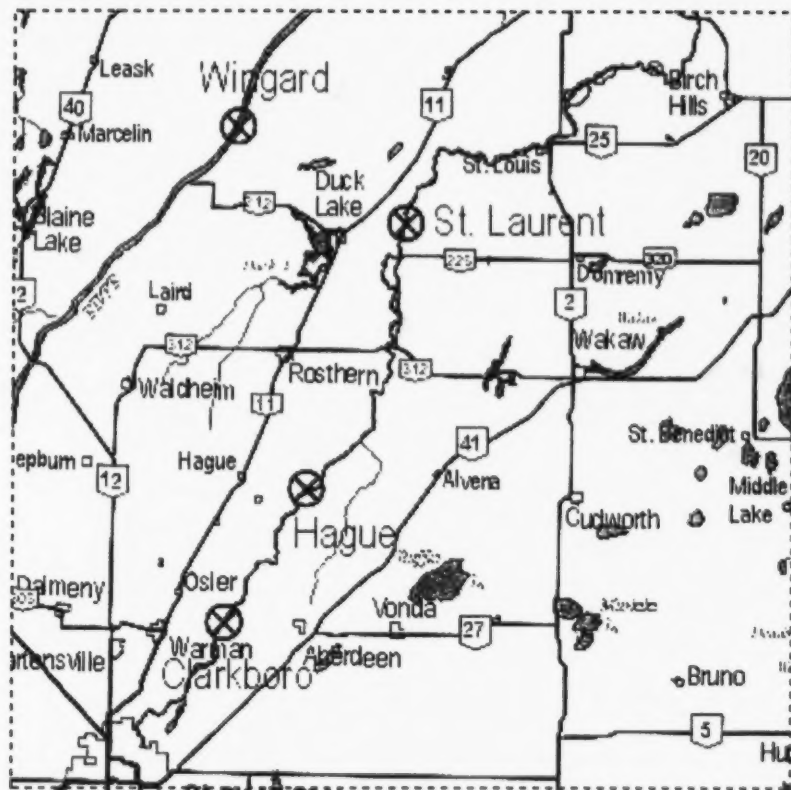
Over the 2009 season, traffic on the Fenton ferry decreased by 29%. The ADT also declined by 8%. In May, June, and July the Fenton ferry was out of service for the equivalent of seven weeks due to low water levels.

Chart 5.3F Vehicle Types Using the Fenton Ferry



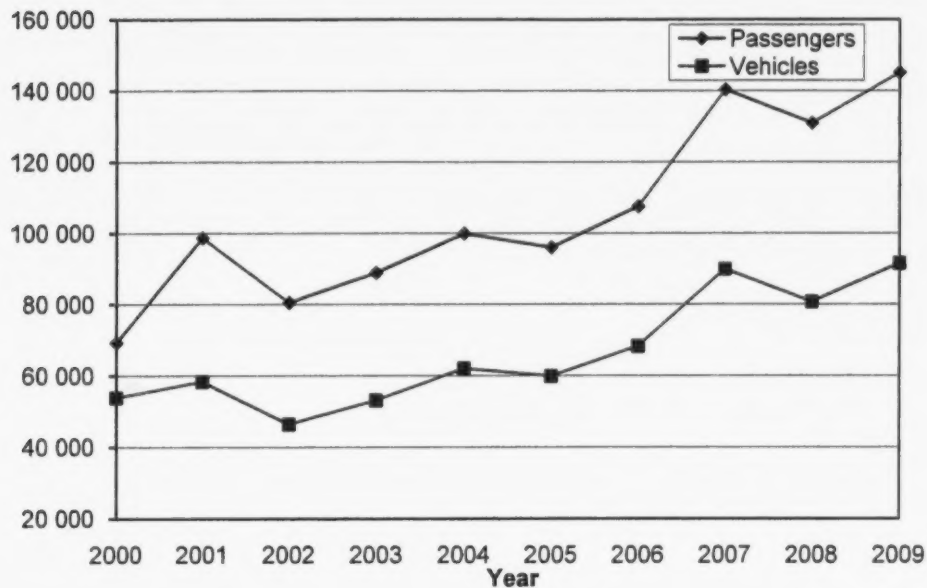
Traffic on the Fenton ferry was almost exclusively passenger vehicles.

5.4 Saskatoon Area



The Saskatoon area contains four ferries: Clarkboro, St. Laurent, Wingard and Hague.

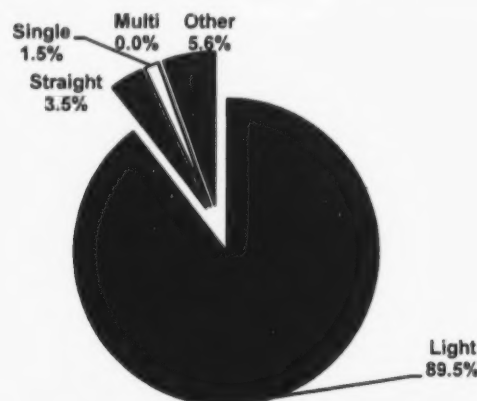
Chart 5.4A 10 Year History of Traffic on the Clarkboro Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	53 780	58 303	46 374	53 066	62 005	59 852	68 246	89 880	80 672	91 462	66 364
Passengers	69 292	98 654	80 526	88 909	99 892	95 977	107 442	140 307	130 852	145 034	105 689
ADT	255	255	234	276	278	298	327	405	373	404	311
Truck %	4.6	5.0	3.9	4.4	4.0	4.9	4.9	5.7	6.5	5.0	4.9

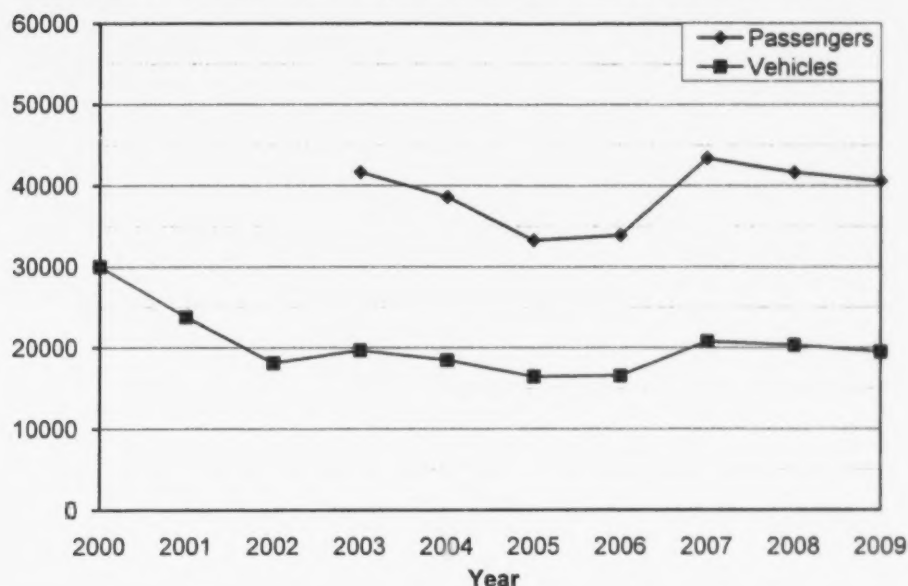
Traffic on the Clarkboro ferry increased by 13% in 2009, well above the ten-year average. ADT increased by 8% and is also significantly above the ten-year average.

Chart 5.4B Vehicle Types Using the Clarkboro Ferry



The Clarkboro ferry has the highest amount of traffic and the highest ADT among Saskatchewan's ferries.

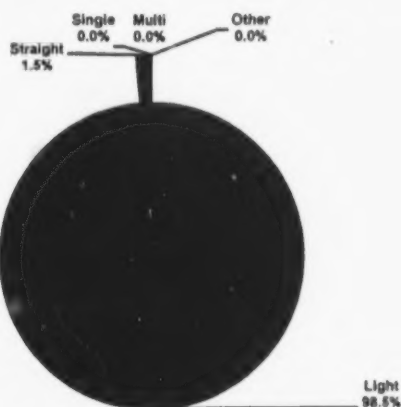
Chart 5.4C 10 Year History of Traffic on the St. Laurent Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	29 980	23 796	18 102	19 661	18 474	16 438	16 550	20 752	20 305	19 485	20 354
Passengers				41 656	38 612	33 252	33 897	43 409	41 667	40 583	39 011
ADT	147	111	99	107	88	84	86	97	98	94	101
Truck %	1.9	2.6	3.8	1.6	1.2	2.8	1.9	2.3	1.3	1.5	2.1

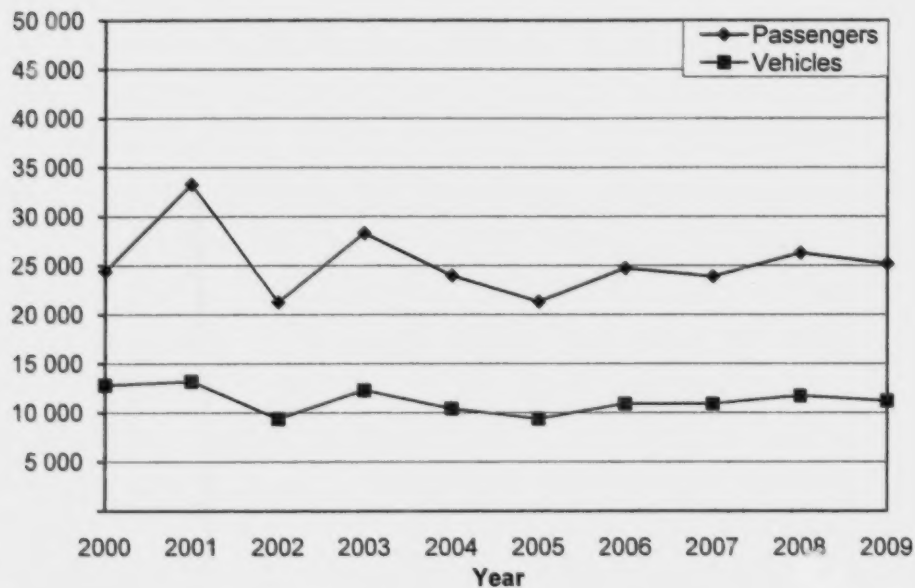
Traffic on the St. Laurent ferry decreased by 4% in 2009 compared to 2008. The 2009 ADT also decreased 4% from the 2008 level.

Chart 5.4D Vehicle Types Using the St. Laurent Ferry



The St. Laurent ferry carries predominantly passenger vehicles.

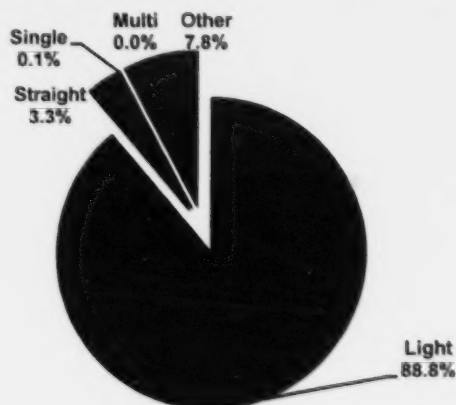
Chart 5.4E 10 Year History of Traffic on the Wingard Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	12 791	13 158	9 368	12 276	10 390	9 375	10 898	10 915	11 736	11 192	11 210
Passengers	24 417	33 260	21 271	28 299	23 954	21 305	24 725	23 886	26 292	25 174	25 258
ADT	63	66	54	66	54	49	57	57	61	59	59
Truck %	3.4	3.2	3.9	5.0	4.3	3.5	2.3	2.3	2.2	3.4	3.3

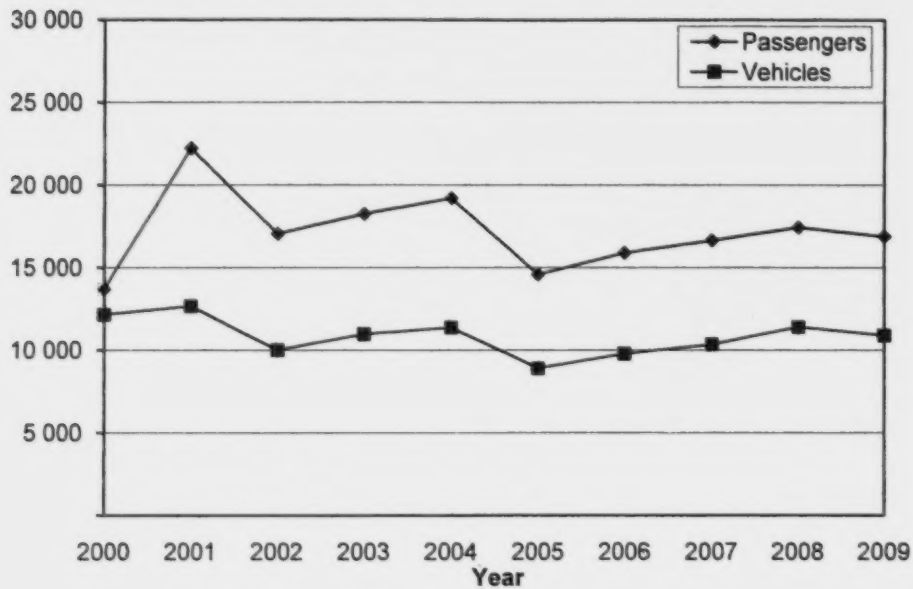
Traffic on the Wingard ferry decreased 5% in 2009 from 2008. ADT in 2009 decreased 3%. The vehicle and passenger totals are within 1% of the ten-year average.

Chart 5.4F Vehicle Types Using the Wingard Ferry



Wingard ferry had a high percentage of "other" vehicles.

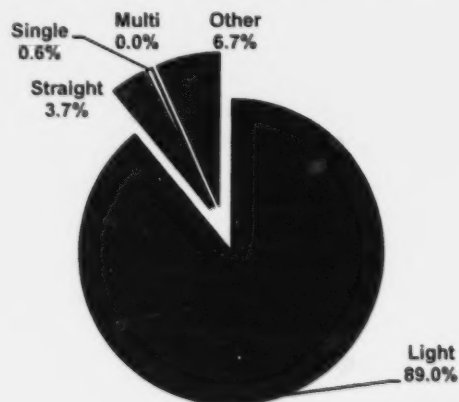
Chart 5.4G 10 Year History of Traffic on the Hague Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	12 156	12 652	10 006	10 963	11 368	8 906	9 772	10 330	11 405	10 897	10 846
Passengers	13 705	22 221	17 040	18 254	19 189	14 580	15 885	16 639	17 435	16 893	17 184
ADT	61	59	55	59	54	51	50	49	54	49	54
Truck %	6.4	4.6	4.8	6.4	5.1	6.4	5.3	5.4	5.7	4.3	5.5

Traffic on the Hague ferry decreased by 4% in 2009, approximately equaling the ten year average. The 2009 ADT decreased by 3%.

Chart 5.4H Vehicle Types Using the Hague Ferry



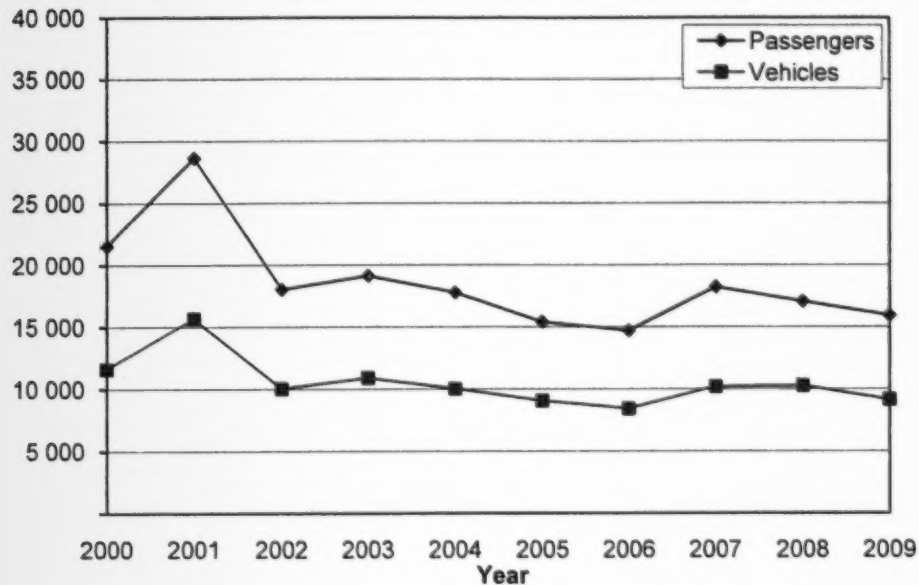
The Hague ferry had a high percentage of "other" vehicles.

5.5 Swift Current Area



The Swift Current area has three ferries: Lemsford, Estuary and Lancer.

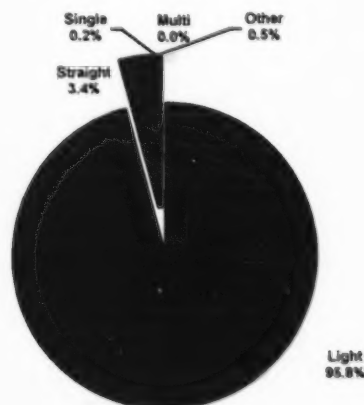
Chart 5.5A 10 Year History of Traffic on the Lemsford Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	11 623	15 659	10 031	10 885	10 040	9 042	8 418	10 197	10 258	9 140	10 529
Passengers	21 548	28 651	18 050	19 129	17 797	15 406	14 708	18 233	17 067	15 958	18 655
ADT	58	69	55	59	48	48	44	47	48	43	52
Truck %	3.6	2.5	5.2	5.8	5.1	3.4	3.3	2.9	5.0	3.7	4.1

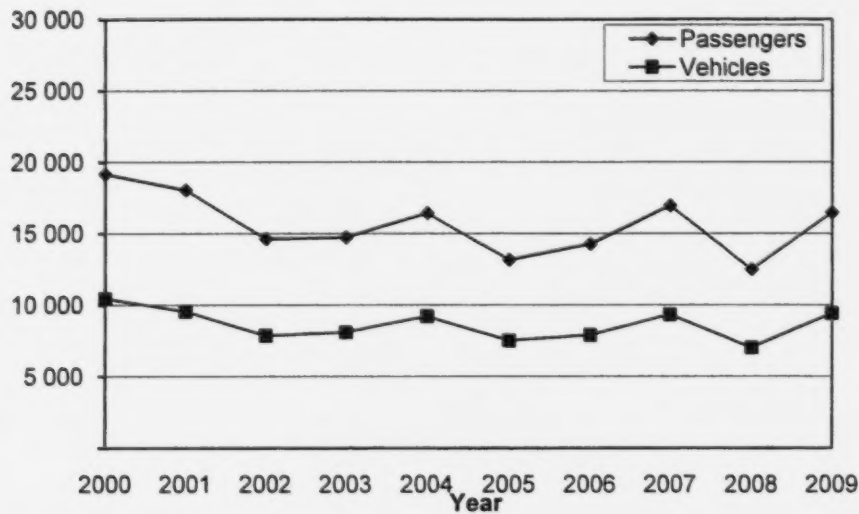
Traffic volume on the Lemsford ferry increased 11% between 2008 and 2009. The 2009 ADT decreased 10% from the 2008 level.

Chart 5.5B Vehicle Types Using the Lemsford Ferry



The vast majority of traffic on the Lemsford ferry was passenger vehicles.

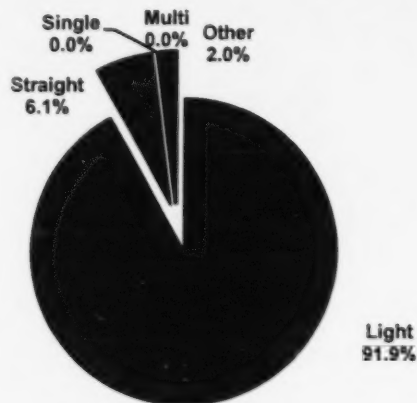
Chart 5.5C 10 Year History of Traffic on the Estuary Ferry



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	10 437	9 541	7 847	8 096	9 200	7 496	7 888	9 326	7 029	9 407	8 627
Passengers	19 152	18 045	14 631	14 728	16 435	13 156	14 266	16 968	12 492	16 479	15 635
ADT	52	48	48	49	46	44	43	45	43	45	46
Truck %	5.4	4.7	8.9	6.1	7.5	6.3	6.3	4.8	7.3	6.1	6.4

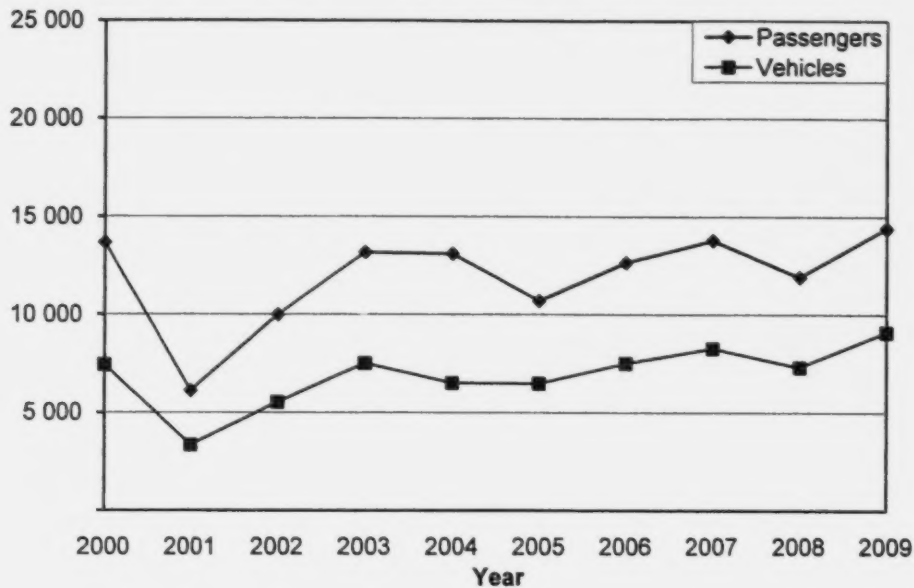
Traffic on the Estuary ferry increased 33% in 2009. The 2009 ADT increased 5% from 2008. The primary reason for the increase was a reduction in down time from 22 days in 2008 to 6 days in 2009. The high water conditions reported in 2008 did not exist in 2009.

Chart 5.5D Vehicle Types Using the Estuary Ferry



Next to the Cecil ferry, this ferry carried the second highest percentage of straight trucks.

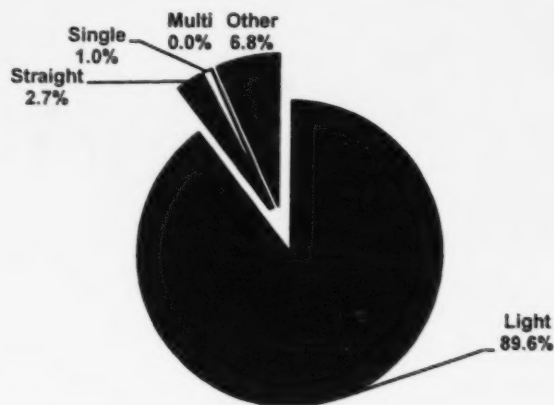
Chart 5.5E 10 Year History of Traffic on the Lancer Ferry



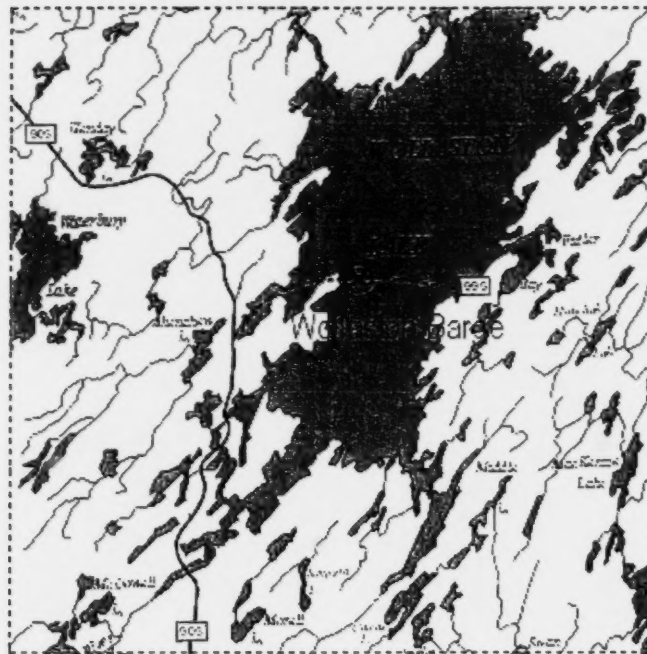
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Vehicles	7 421	3 324	5 503	7 490	6 498	6 461	7 490	8 270	7 312	9 087	6 886
Passengers	13 668	6 113	9 992	13 174	13 090	10 694	12 662	13 790	11 918	14 406	11 951
ADT	37	34	32	40	31	37	39	40	37	43	37
Truck %	3.7	2.3	3.9	6.7	6.4	4.8	6.6	4.7	4.8	3.7	4.7

In 2009, traffic on the Lancer ferry increased 24%, and the 2009 ADT increased 16% from the 2008 level. Contributing to the increase was a reduction in downtime from approximately 21 days in 2008 to 4 days in 2009. The high water conditions reported in 2008 did not exist in 2009.

Chart 5.5F Vehicle Types Using the Lancer Ferry

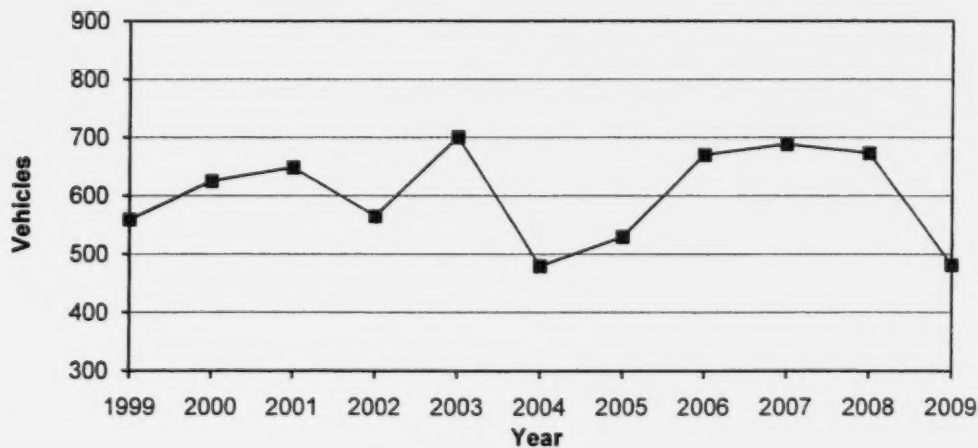


5.6 Wollaston Barge Ferry



The Wollaston Barge ferry connects the community of Wollaston Lake to Highway 905. This vessel is unique because it is the only free-swimming ferry in the province and is the only ferry that charges a fee. The Hatchet Lake Denesuline First Nation operates the ferry under contract to the Ministry. The operational season at Wollaston Lake was shorter than other ferries in the province due to the northern location. This ferry carries significantly lower traffic volumes than the southern ferries because the length of the crossing allows a maximum of only three round trips each day.

Chart 5.6A Eight Year History of Traffic on the Wollaston Barge Ferry

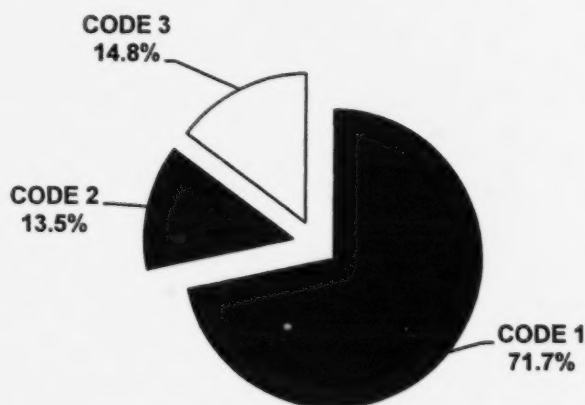


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Vehicles	559	625	648	565	700	479	529	670	668	673	481
ADT	5	5	6	5	5	5	5	5	5	5	5
Truck %	38.3	42.7	41.5	45	42.6	38.8	34	34.5	32.7	46.1	28.3

In 2009, the operating season was 47 days shorter than in 2008. Operation did not start until mid-July, and the season ended approximately two weeks earlier in October. The reduced operating time resulted in a 29% decline in traffic compared to the previous year. The ADT did not deviate from the eight year average.

The vehicle classification system used at Wollaston is different than that used by the rest of the ferry system. The three codes used at the Wollaston Barge ferry are based on the fee structure charged to the different vehicle types.

Chart 5.6B Vehicle Types Using the Wollaston Barge Ferry



Code 1 - Single Light Vehicle - car, truck (less than a 1 ton), motorcycle, etc.

Code 2 - Other - includes single vehicles with trailer, trucks over one ton, etc.

Code 3 - Full - Any semi trailer, construction equipment, etc.

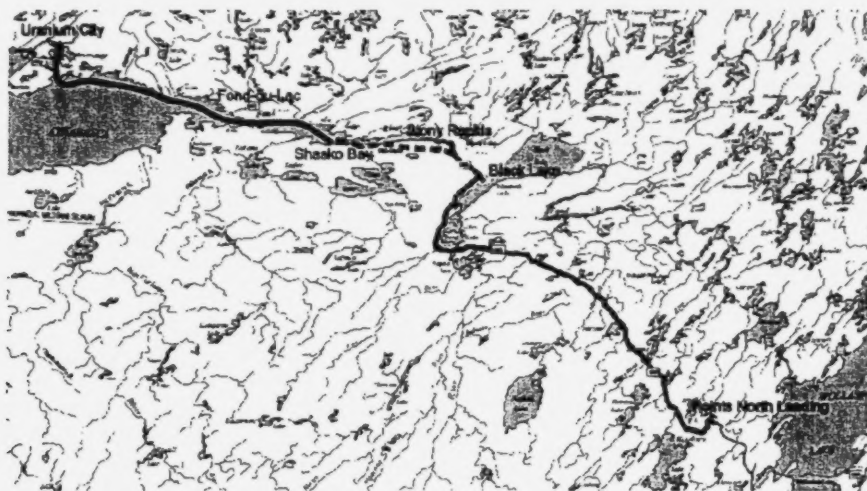
Although the Wollaston ferry carried a higher percentage of light vehicles (71.7% in 2009 versus 53.9% in 2008), the percentage of commercial vehicles carried is still the highest among all the ferries at approximately 28.3%. Other than by air, this ferry provides the only summer access to Wollaston Lake. There are few passenger trips because the community is small and the trip to the nearest community is quite long.

6.0 Seasonal/Winter Roads

All four seasonal/winter roads were operated by the Ministry in 2009. The four seasonal roads are the Cumberland House road (52 km), the Wollaston Lake road (46 km), the Athabasca road (358 km) and the Riverhurst ice road (2.4 km). Seasonal/winter roads are a vital link to the northern communities. They provide economical access to heavy and bulk commodities like fuel and building materials.

The length of the operating season for the seasonal/winter roads varies from year to year depending on winter conditions. Local traffic often uses the roads outside of the official season. The ice has to be sufficiently thick and the road completely constructed before the Ministry officially opens a seasonal/winter road to travel.

6.1 Athabasca Seasonal/Winter Road



The Athabasca seasonal/winter road was maintained by the Athabasca Basin Development Corporation under contract to the Ministry. Four separate road sections form the Athabasca seasonal/winter road. Over 185 km from Points North Landing to Black Lake is currently a bladed trail that requires extensive yearly repair work. The road from Stony Rapids to Shasko Bay was a winter-only road and the two sections from Shasko Bay to Uranium City are ice roads across Lake Athabasca. In recent years administrative information related to the two middle sections, Stony Rapids to Shasko Bay and Shasko Bay to Fond-du-Lac has been collected as one section from Stony Rapids to Fond-du-Lac. The combined lengths and operating costs for the section are listed in Table VII.

The combined length of the seasonal/winter road sections from Points North to Uranium City was 358 km. The 2008-09 cost of building and maintaining the four seasonal/winter road sections was \$1,966,677.04 for a unit cost of \$5,494 per km. Historical data for the sections are shown in the tables that follow.

**Table VI. History of the Athabasca Seasonal/Winter Road
(Points North to Black Lake)**

Year	Opening	Closing	Length (days)	Length (km)	Cost
2002-03	N/A	N/A		180	\$866,523
2003-04	N/A	Mar 31		183	\$1,182,483
2004-05	N/A	Apr 04		183	\$1,106,954
2005-06	N/A	N/A		183	\$835,103
2006-07	Jun 06	Mar 31	298	183	\$1,182,483
2007-08	Jun 06	Mar 31	299	183	\$1,705,933
2008-09	N/A	Mar 31		183	\$1,366,324

* There were no official opening or closing dates in 2003, 2006, or 2008

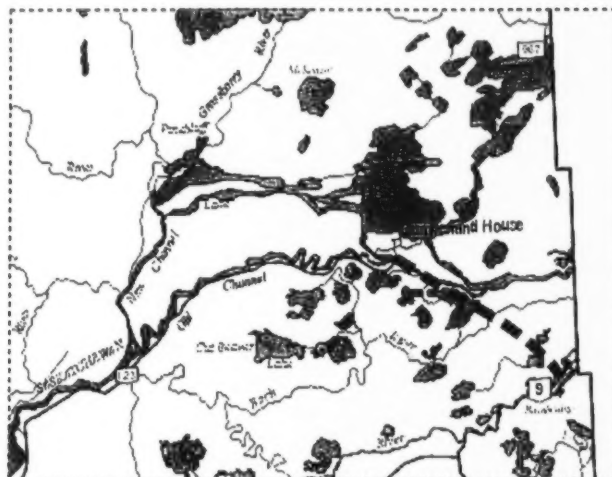
**Table VII. History of the Athabasca Seasonal/Winter Road
(Stony Rapids to Fond-du-Lac)**

Year	Opening	Closing	Length (days)	Length (km)	Cost
2002-03	Feb 10	Mar 31	50	83.6	\$215,046
2003-04	Feb 11	Mar 31	50	82	\$172,255
2004-05	Feb 10	Apr 04	54	82	\$194,918
2005-06	Mar 02	Mar 31	29	82	\$176,100
2006-07	Feb 07	Mar 31	52	82	\$172,255
2007-08	Feb 07	Mar 31	52	82	\$331,984
2008-09	Jan 22	Mar 31	68	82	\$307,362

**Table VIII. History of the Athabasca Seasonal/Winter Road
(Fond du Lac to Uranium City)**

Year	Opening	Closing	Length (days)	Length (km)	Cost
2002-03	Feb 17	Mar 15	27	92	\$99,208
2003-04	Mar 01	Mar 18	18	93	\$60,000
2004-05	Mar 08	Apr 06	30	93	\$104,292
2005-06	Mar 17	Mar 31	14	93	\$94,932
2006-07	Mar 05	Mar 31	26	93	\$60,000
2007-08	Mar 05	Mar 31	26	93	\$160,999
2008-09	Feb 23	Mar 31	36	93	\$292,990

6.2 Cumberland House Winter Road



The Cumberland House winter road was first operated in 1992-1993. The Cumberland House road was 53 km long and intersects with the north end of Highway 9 just west of the Manitoba boundary. The first 17 km were significantly improved in 2004-05. The roadway was widened and sight distances were improved. These first 17 kilometres were originally maintained by Weyerhaeuser.

The winter road was officially open to traffic in 2008-09. An estimated 30 vehicles per day used the road, for a total of 2100 vehicles during the operating season. The 10 year history of the Cumberland House winter road is shown in the table below.

Table IX. 10 Year History of the Cumberland Winter Road

Year	Opening	Closing	Length (days)	Cost
1998-99	Dec 8	Mar 3	86	\$4,524
1999-2000	Jan 5	Mar 22	78	\$4,500
2000-01	Jan 3	Mar 14	71	\$14,242
2001-02	Jan 11	Mar 28	77	\$13,113
2002-03	Jan 22	Mar 21	59	\$18,952
2003-04	Jan 30	Apr 2	64	\$22,424
2004-05	Dec 30	Mar 31	92	\$46,575*
2005-06	Feb 9	Mar 24	44	\$12,252
2006-07	Feb 3	Mar 20	47	\$33,585
2007-08	Jan 24	Apr 2	70	\$33,585
2008-09	Jan 2	N/A	N/A	\$56,931

* Widening and Sight Distance Improvements

6.3 Riverhurst Winter Road



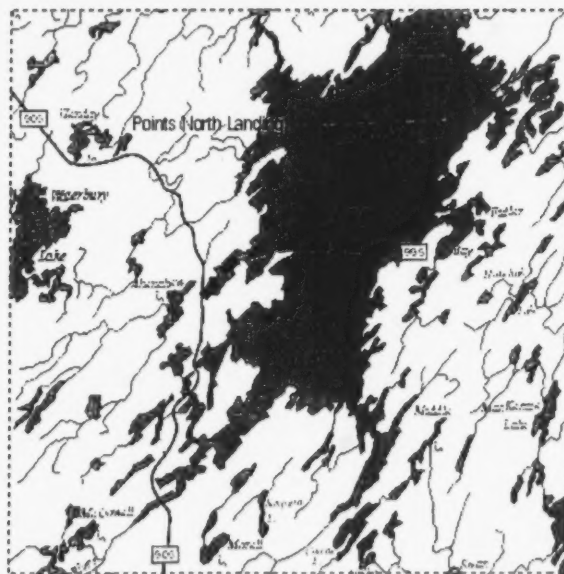
The Riverhurst ice road has operated intermittently for many years. In years when an official road is opened, the Ministry establishes and maintains it. Local residents may sometimes create a winter trail across the ice in the years that the Ministry opts not to open a winter road. There is no official operational record for those years.

The Riverhurst ice road was opened on February 5, 2009 and closed on March 31, 2009 for a total of 55 days of operation. The total cost to operate the road for the year was \$27,953.00 or \$508 per day of operation. The ten year history of the Riverhurst Ice Road is shown in the table below.

Table X. 10 Year History of the Riverhurst Ice Road

Year	Opening	Closing	Length(days)	Cost
1998-99	Feb 1	Mar 19	47	N/A
1999-2000	N/A	N/A		N/A
2000-01	Mar 4	Mar 12	9	N/A
2001-02	N/A	N/A		N/A
2002-03	Feb 21	Mar 15	23	\$16,547
2003-04	Feb 4	Mar 10	36	\$60,782
2004-05	Feb 4	Mar 6	31	\$21,000
2005-06	N/A	N/A		N/A
2006-07	Jan 26	Mar 9	42	\$15,402
2007-08	Feb 3	Mar 12	38	\$13,854
2008-09	Feb 5	N/A		\$27,953

6.4 Wollaston Lake Winter Road



The Wollaston Lake ice road was 46 km long and crosses the ice on Wollaston Lake to provide access to the residents of the community of Wollaston Lake. The road was established and maintained by the Hatchet Lake Denesuline First Nation under contract to the Ministry. The total operating cost was \$172,500 for a unit cost of \$3,750 per km or \$2,574 per day. An estimated 200 vehicles per week used the roadway, for a total of 2,000 vehicles during the operating season. The operational history of the Wollaston Lake ice road is shown in the table below.

Table XI. History of the Wollaston Lake Ice Road

Year	Opening	Closing	Length(days)	Cost
1999-00	Jan 17	Mar 31	75	\$126,666
2000-01	Feb 20	Apr 08	46	\$95,844
2001-02	Feb 12	Apr 05	53	\$99,158
2002-03	Feb 10	Apr 05	55	\$124,813
2003-04	Feb 18	Mar 31	43	\$100,079
2004-05	Feb 09	Apr 06	57	\$97,000
2005-06	Feb 21	Mar 31	38	\$124,246
2006-07	Feb 02	Mar 31	58	\$100,079
2007-08	Jan 24	Mar 31	67	\$172,500
2008-09	Jan 23	Mar 31	67	\$172,500

7.0 Conclusions

Year over year traffic fluctuations at individual ferries are related to the operating season length, river conditions and local economic activity. In 2009, the ferry system operated above the ten year average traffic levels. Some ferries were closed for a small number of days because of low water levels, high winds, sandbars and mechanical issues. Overall, the 2009 ADT was 2% higher than the 2008 ADT. The number of passengers traveling the ferries was approximately 4% higher than in 2008.

7.1 Operating Season/Downtime

- The 2009 operating season length was slightly longer than the 2008 season.
- As in previous years, the Riverhurst ferry had the longest operating season, extending into December.
- The Fenton and Estuary ferries were closed for the longest periods of time due to low water levels and sandbars.
- The shutdown periods ranged from no shutdown days at five of the ferries to highs of 2.8% at Estuary, and 26.2% at Fenton.
- The operating period for the Wollaston Lake seasonal/winter road was shorter than in 2008.
- At segments of the Athabasca winter road where both season start and end dates were reported, the operating season was as high as 16 days longer than in 2008.

7.2 Traffic Volumes

- Fenton and Wollaston ferries carried more than 25% fewer vehicles, while the Lemsford ferry carried 10% fewer vehicles in 2009 than in 2008.
- Estuary and Lancer ferries carried over 25% more vehicles, while the Clarkboro and Riverhurst carried over 10% more vehicles in 2009 than in the previous year.
- The ADT at the Lemsford ferry dropped by 11%, while the ADT at the Hague dropped by 8%.
- The ADT at the Lancer and Riverhurst increased by over 15% and the ADT at Clarkboro by over 8% compared with the 2008 ADT.

7.3 Vehicle Classifications

- The Wingard, Riverhurst, Paynton, and Hague ferries had a high percentage of "other" vehicles, which are normally interpreted as farming and recreational vehicles.
- The Estuary and Cecil ferries had a large percentage of straight trucks, which are used primarily for short distance hauling.
- Riverhurst and Cecil ferries had the highest percentage of single and multi trailer semi trucks.
- The Wollaston Barge ferry had the highest percentage of trucks.
- The Wingard and St. Laurent were the only ferries which saw increases in truck traffic percentage.

8.0 Recommendation

To improve the timeliness of future reports, seasonal road information from the Ministry's Area Offices should be requested shortly after the roads' operating seasons end in March or April. Up to and including this report, requests have been made at least nine months after the end of the season, coinciding with the time the ferry information for the year is compiled.

Appendix A



Saskatchewan
Ministry of
Highways and
Infrastructure

Ferry Traffic Data Summary

Ferry crossing _____ File No. _____ Month of _____, 20____

Shift						
Day	LGT	Straight Trucks	Semi Trailer	Multi Trailer	No. Pass	Other
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
Totals						

Statement Certified Correct

Ferry operator _____

KEY

LGT	-Cars & Pickups
Straight Trucks	-Non-articulated
Semi Trailer	-Single Trailer
Multi-Trailer	-2 or more Trailers

Notes:

- 1) "Other" includes farm or construction equipment
- 2) Give details in "Comments" ie: dangerous goods equipment type, product hauled etc.

Riverhurst Ferry Traffic Data

Sheet No. _____

Date _____ Shift _____ Operators 1. _____ 2. _____

[illegible]

Ferry operator

Appendix B

2009 Ferry Downtime

Ferry	Date	Hours	2009 Total Downtime	% of Time Out of Service	Reason
Clarkboro	August 6 to 7	12.5	12.5	0.3%	No Reason Given
Riverhurst	May 13 to 14	18	91	1.8%	Mechanical Breakdown
	May 21	8			Repairs
	May 28	2			Repairs
	October 15	4			Repairs
	October 31 to November 2	47.5			Cable Repairs
	November 6	9.5			High Wind
	November 19	2			Repairs
St. Laurent	November 14 to 16	51	51	1.4%	Ice
Cecil	May 6 and 7	17	25	0.8%	No Reason Given
	November 5	8			Ice
Lemsford	November 14 to 16	52.5	52.5	1.4%	Ice
Fenton	May 22 to June 7	289	856	26.2%	Low Water
	June 10 to 13	68			Low Water
	June 17 and 18	14.5			Low Water
	June 19 to July 16	476			Low Water
	August 21	8.5			Repairs
Estuary	October 8 to 13	102	102	2.8%	Sand Bar
Lancer	July 6 to 7	11.5	68.5	1.9%	Repairs
	November 6	4			High Wind
	November 14 to 16	53			Ice

Appendix C

Historic Traffic Volumes

Ferry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Clarkboro	34 674	42 448	31 975	39 338	42 991	40 839	52 185	53 780	58 303	46 374	53 066	62 005	59 852	68 246	89 880	80 672	91 462	55 770
Paynton	42 058	30 686	30 453	30 172	34 365	32 453	28 808	33 749	31 348	28 910	32 603	33 996	31 155	31 752	30 111	27 270	27 212	31 594
Riverhurst	40 242	40 076	41 291	36 449	50 766	45 763	42 424	50 010	47 867	37 578	34 288	34 258	27 829	22 741	31 245	30 203	33 886	38 054
Weldon	24 754	30 465	26 268	29 657	29 455	28 003	30 382	27 770	25 875	22 461	25 308	27 709	26 124	26 137	25 887	27 838	28 850	27 232
St.Laurent	18 556	20 421	30 030	19 875	16 987	17 133	29 143	29 980	23 796	18 102	19 661	18 474	16 438	16 550	20 752	20 305	19 485	20 923
Cecil	13 210	12 752	12 678	11 603	11 303	11 234	11 016	11 484	13 073	11 873	15 254	13 368	14 151	12 897	10 774	12 987	13 070	12 513
Wingard	10 115	10 719	10 687	9 878	9 420	12 467	12 227	12 791	13 158	9 368	12 276	10 390	9 375	10 898	10 915	11 736	11 192	11 036
Lemsford	13 381	13 471	12 170	12 805	14 393	11 849	11 730	11 623	15 659	10 031	10 885	10 040	9 042	8 418	10 197	10 258	9 140	11 476
Hague	20 883	14 442	12 425	11 961	14 577	13 122	12 845	12 156	12 652	10 006	10 963	11 368	8 906	9 772	10 330	11 405	10 897	12 277
Fenton	6 517	9 730	8 582	8 366	8 716	8 324	9 640	8 533	8 563	6 461	6 974	7 306	7 738	8 519	9 394	9 437	6 713	8 207
Estuary	8 153	7 278	6 844	8 463	9 058	9 217	9 793	10 437	9 541	7 847	8 096	9 200	7 496	7 888	9 326	7 029	9 407	8 534
Lancer	7 047	7 649	5 673	6 789	6 685	6 967	7 604	7 421	3 324	5 503	7 490	6 498	6 461	7 490	8 270	7 312	9 087	6 898
Wollaston Barge							559	625	648	565	700	479	529	670	688	673	481	602
Cumberland	24 000	23 041	28 198	19 082	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	23 580
Total	263 590	263 178	257 274	244 438	248 716	237 371	258 356	270 359	263 807	215 079	237 564	245 091	225 096	231 978	267 769	257 125	270 882	250 451

Appendix D

Historic Average Daily Traffic (ADT)

Ferry	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Clarkboro	218	206	234	255	255	234	276	278	298	327	405	373	404	280
Paynton	210	159	141	170	158	167	175	180	161	169	162	152	140	167
Riverhurst	213	190	174	216	204	176	169	153	127	131	139	141	162	170
Weldon	153	142	159	141	135	133	142	141	144	144	137	146	145	143
St. Laurent	91	85	130	147	111	99	107	88	84	86	97	98	94	102
Cecil	59	57	58	57	67	71	86	69	74	69	59	68	68	66
Wingard	50	63	63	63	66	54	66	54	49	57	57	61	59	59
Lemsford	68	58	52	58	69	55	59	48	48	44	47	48	43	54
Hague	75	68	58	61	59	55	59	54	51	50	49	54	49	58
Fenton	45	43	51	45	45	40	41	38	43	47	50	51	47	45
Estuary	44	47	44	52	48	48	49	46	44	43	45	43	45	46
Lancer	33	33	34	37	34	32	40	31	37	39	40	37	43	36
Wollaston Barge			5	5	6	5	5	5	5	5	5	5	5	5
Total	1 261	1 152	1 204	1 307	1 255	1 171	1 276	1 184	1 165	1 209	1 291	1 278	1 304	1 229

Appendix E

Historic Passenger Volumes

Ferry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Clarkboro	69 292	98 654	80 526	88 909	99 892	95 977	107 442	140 307	130 852	145 034	101 317
Paynton	60 119	55 475	50 577	56 014	57 743	54 100	46 889	51 909	45 457	45 234	53 143
Riverhurst	100 979	90 056	70 700	66 422	63 193	51 692	42 213	56 320	54 742	60 157	66 257
Weldon	N/A	49 555	44 007	48 249	54 082	51 835	52 851	50 847	55 133	56 449	50 820
St.Laurent	N/A	N/A	N/A	41 656	38 612	33 252	33 897	43 409	41 667	40 583	38 749
Cecil	N/A	24 098	22 112	28 819	24 310	24 015	23 052	18 505	22 986	23 515	23 487
Wingard	24 417	33 260	21 271	28 299	23 954	21 305	24 725	23 886	26 292	25 174	25 268
Lemsford	21 548	28 651	18 050	19 129	17 797	15 406	14 708	18 233	17 067	15 958	18 954
Hague	13 705	22 221	17 040	18 254	19 189	14 580	15 885	16 639	17 435	16 893	17 216
Fenton	N/A	13 236	10 835	11 909	12 209	12 517	14 341	14 195	15 038	10 631	13 035
Estuary	19 152	18 045	14 631	14 728	16 435	13 156	14 266	16 968	12 492	16 479	15 541
Lancer	13 668	6 113	9 992	13 174	13 090	10 694	12 662	13 790	11 918	14 406	11 678
Total	322 880	439 364	359 741	435 562	440 506	398 529	402 931	465 008	451 079	470 513	412 844

